Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matters of	)	
	)	
Innovation in the Broadcast Television	)	ET Docket No. 10-235
Bands: Allocations, Channel Sharing and	)	
Improvements to VHF	)	

TO: The Office of the Secretary

COMMENTS OF THE
TRINITY BROADCASTING NETWORK

I. INTRODUCTION

Trinity Christian Center of Santa Ana, Inc., d/b/a Trinity Broadcasting Network ("Trinity"), pursuant to the Commission's November 30, 2010 *Notice of Proposed Rulemaking*, FCC 10-196, ("*Notice*") published in the Federal Register on February 1, 2011, 76 Fed. Reg. 5521, provides the following comments. The *Notice* seeks to begin the implementation of the proposal of the National Broadband Plan ("*Plan*")[1] to recapture 120 MHZ of the 294 MHZ of spectrum[2] now designated for broadcast TV, by providing access to wireless broadband providers to television broadcast frequencies that could become available through potential spectrum auctions (yet to be authorized by Congress) in which licensees might voluntarily participate . The *Notice* also proposes allowing one or more TV stations to voluntarily combine their operations

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[1/] *See Connecting America: The National Broadband Plan*, Federal Communications Commission, Washington, DC (March 2010); available at http://www.broadband.gov/plan.

[2/] *See Notice* at 2.

and programming on a single TV channel. Finally, the *Notice* proposes improving TV reception on the VHF channels (2-13) by increasing transmitting power and establishing minimum performance standards for indoor antennas.

As explained below in greater detail, all of the 29 commercial and 6 noncommercial TV stations of the Trinity Broadcasting Network[3] currently utilize all of the 6 MHZ of their allotted spectrum to provide a noncommercial multicast service which includes five free-to-the-home standard definition signals. These stations also provide periodic high-definition programming, and Trinity is pursuing the addition of a mobile video service. This level, quality, and variety of channel choice and public service fully utilizes all spectrum available within the 6 MHZ allocated to each station. Trinity wishes to continue this level and variety of service to the public, and to continue innovating and improving. It believes that moving forward to recapture and repurpose over thirty-five percent (35%) of the of spectrum (channels 32-51) designated for broadcast TV would be a mistake, and would ultimately harm and reduce the level and quality of free-to-the-home service American's desire and deserve. As aptly noted by Deborah McAdams of *Television Broadcast*, in her January 28, 2011 column, "once free broadcast TV is gone, it's gone for good."[4]

II. AS A MULTICAST BROADCASTER TRINITY UTILIZES ALL OF ITS ALLOTTED CHANNEL, MAKING SHARED CHANNEL USE IMPOSSIBLE

Trinity is a religious broadcaster, and digital broadcasting has presented it with new opportunities to develop unique, free, and innovative program and community service

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[3/] A listing of the owned and operated and affiliated stations of the Trinity Broadcasting Network is provided in Attachment A.

[4/] *See*, http://www.televisionbroadcast.com/article/112876 (visited February 7,2011)

opportunities. Key among such opportunities is the capacity to multicast, and Trinity has developed and brought to service several additional streams of video programming. Those multicast streams include "The Trinity Broadcasting Network," "The Smile of A Child TV," "The Church Channel," "Enlace USA," and "JCTV." In addition to its flagship service, "The Trinity Broadcasting Network," Trinity developed these additional multicast streams to serve the public and provide unique, varied, and valuable religious, cultural, educational, informational, and children's programming services. In doing so, it also advanced important constitutional and public service values which the Commission has long recognized and encouraged. *See In the Matter of Children's Television Programming and Advertising Practices*, 96 F.C.C.2d 634, ¶¶ 39-43 (FCC 1984) (discussing cases and decisions encouraging licensees to develop, select, and offer unique and innovative programming)

"Enlace USA," for example, serves the religious programming needs and interests of Spanish-speaking viewers, and expands the diversity and availability of public interest content to previously under-served communities. "The Smile of A Child TV," another 24 hour digital multicast service, provides significant educational programming service children under the age of twelve. "The Church Channel," provides a trans-denominational offering, including some of the most compelling, and ethnically and culturally diverse, religious services from across the country. Finally, "JCTV" is designed with the teenager-young adult age group in mind, combining music video programming, sketch and stand up comedy, talk shows, adventure, informational, action sports programming, and other diverse subject matter of interest. Each of these multicast programming streams is available free for all broadcast viewers.

Trinity's experience with the development and implementation of these additional channels leads it to conclude that it needs and uses all of the 6 MHZ (19.4 mbps) of spectrum entrusted with at each of its stations[5], making any shared use with another licensee impossible.

II. PROGRAM INNOVATION, LOCAL ORIGINATION, AND FIRST AMENDMENT VALUES WILL BE ADVERSELY IMPACTED BY RECAPTURING OVER THIRTY-FIVE PERCENT OF BROADCAST TV SPECTRUM

Over the last forty years television broadcasting has provided spectrum accommodation and has numerous times surrendered spectrum for competing uses. These have included over 100 MHZ of spectrum through vacating VHF channel 1, UHF channels 70 through 83, and UHF channels 52 through 69. Digital television has been re-packed into the current core spectrum between channels 2 and 52.[6] In the 2 Ghz band, broadcasters are also vacating 35 MHZ of spectrum as part of the digital conversion of auxiliary service equipment. At the same time, television broadcasting remains the most efficient way to provide free service to the widest public possible. These steps and efficiencies must be considered when modifying spectrum allocation and management. Moreover, spectrum management policies must recognize the value of the new, diverse, and innovative services and offerings being provided and developed by broadcasters such as Trinity. Such policies should also not deprive the public of these services

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[5/] Trinity uses a statistical multiplexing ("stat muxing") process. Each of its five free-to-the-home multicast streams uses an average of 3.538 mbps of spectrum, and its Program and System Information Protocol (PSIP) and AC-3 Audio use 750 kbps and 960 kbps, respectively. In addition, Trinity is working to add a mobile video service which will require an additional 2 mbps of bandwidth, and high-definition programming broadcasts range between 5-8 mbps.

[6/] http://www.fcc.gov/cgb/consumerfacts/digitaltv.html (visited 2-13-11).

and offerings, or force the public to pay for similar services being provided by competing providers, such as cable, or wireless services sometime in the future.

In June of 2009 television broadcasters completed the more than ten year process of moving from an analog to a digital service format, at the cost of many billions of dollars nationwide. Each station had to invest millions of dollars in new and parallel transmission facilities and operational costs over that time. At the same time, consumers were also required to make investments in new digital televisions with receivers, and new tuner boxes. MediaPost News has reported that consumers spent over $25 billion in HDTV receivers just 2009[7]. The government also spent billions of dollars in subsidies to help consumers acquire converter boxes to make the analog to digital switch. The Commission should not now minimize or strand such investments by consumers and broadcasters by reducing or limiting access to free broadcast service with any proposal to recapture even more broadcast spectrum.

There is only one likely outcome from the recapture of additional broadcast spectrum, it will be the diminution in the quantity of free voices and programming streams from which broadcast television audiences will be able to choose. Licensees will be driven by the Commission to either pursue revenue positive selections, without regard to whether the choices that result serve the public interest, or abandon a wider diversity in multicast programming presented.

That outcome would not only be unfortunate, but is inconsistent with the constitutional values and important communications policies of the United States. More than sixty years ago,

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[7/] http://www.mediapost.com/publications/?fa=Articles.showArticle&art_aid=114483, September 29, 2009 (visited 2-13-11).

the Supreme Court noted that the First Amendment's "assumption that the widest possible dissemination of information from diverse and antagonistic sources" promotes a free society. *Associated Press v. United States*, 326 U.S. 1, 20 (1945). More recently, the Supreme Court held, in *Turner Broadcasting System, Inc. v. FCC*, 520 U.S. 180, 189 (1997), that "promoting the widespread dissemination of information from a multiplicity of sources" is an important government interest, and a core First Amendment value. As Justice Kennedy's opinion for the Court explained:

> We have noted that it has long been a basic tenet of national communications policy that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public. [I]ncreasing the number of outlets for community self-expression represents a long established regulatory goa[l] in the field of *television* broadcasting.

520 U.S. at 192-93 (citations and internal quotation marks omitted, italics added).

Trinity believes its experience in multicasting evidences that it has taken a studied and distinctly public service oriented approach to utilizing its digital bandwidth. It has used the increased capacity to serve the public interest in providing a diversity of programming options, to the end that a broader scope of audience demographics find their particular broadcasting interests and needs answered by one or another of Trinity's offerings. In doing so, Trinity has advanced the interest in diversifying the voices carried by its video programming services, and properly advanced the interests of the First Amendment and the public. Any additional recapture and repacking of broadcast spectrum as contemplated in the *Plan* would limit these advancements in free public service, and turn a deaf ear to the First Amendment values advanced by broadcast television.

III. IMPLEMENTING THE *PLAN'S* RECAPTURE PROPOSAL WOULD NOT LEAVE A SUFFICIENT NUMBER OF CHANNELS TO ACCOMMODATE REPACKING IN THE MAJOR MARKETS

In the largest television markets, which are undoubtedly the most lucrative markets being eyed by broadband operators for auction, implementing the *Plan's* recapture proposal would not leave a sufficient number of channels to accommodate repacking. For example, as explained in the attached Engineering Statement from Smith and Fisher,[8] Trinity is the licensee of KTBN-TV, channel 33, Santa Ana, California, which is part of the Los Angeles Designated Market Area (DMA). KTBN's transmitter site, and that of most of the other full-power television stations in the Los Angeles DMA, is on Mount Wilson. If the Commission retakes channels 32 to 51 (120 MHZ) from the television spectrum, and no stations choose to participate in a voluntary auction or channel sharing arrangement, that would only leave just 23 channels to accommodate 26 stations.

This channel deficit occurs because of the 30 channels otherwise available between channels 2-31, in los Angeles (as in many major markets), there are Public Safety/ Land Mobile assignments on Channels 14, 16 and 20. Since the devices that presently exist on these land Mobile channels cannot function properly when located in the vicinity of a first-adjacent channel full-power station, 7 additional UHF channels are unusable (Attachment 2 at 2). So, in Los Angeles there would be a total of only 23 available channels for repacking (12 VHF channels and 11 UHF channels). There are, however, 26 television stations in the Los Angeles market.[9]

[8/] Attachment 2.

[9/] This number includes stations in Twentynine Palms and Barstow, both of which have facilities that are located a significant distance from Mt. Wilson, where the rest of the stations in the DMA are located. There are also at least five Class A LPTV stations located in close

Moreover, in order to allow for the maximum number of stations to be repacked in major television markets like los Angeles, and to avoid first adjacent channel interference, all stations would either have to co-locate, or nearly co-locate, and have similar antenna heights, power levels and antenna patterns (Attachment 2 at 3). This in turn would require the Commission to abandon its city-grade coverage requirements, relax the signal strength contour or allow (require) those re-located stations with cities of license the farthest away to use distributed transmission systems to serve its city of license (Id.). If outlying stations are not allowed to co-located with the rest of the market stations, due to high levels of adjacent-channel interference they would essentially negate the use of three channels *each* in their market and/or adjacent markets. The only alternative would be for the Commission to allow such interference to occur, which would detrimentally impact the service such outlying stations and their viewers would receive.

An additional issue preventing an adequate number of channels being available for repacking in the major markets is co-channel interference levels from stations using the same channel in adjacent markets. In the case of KTBN, the adjacent markets are Bakersfield and San Diego. Because of terrain that exists between Los Angeles and Bakersfield, the interference between co-channel stations operating with maximum omnidirectional facilities would be small (less than 1 percent). However, a co-channel 1000 kW omnidirectional facility in San Diego would cause interference to 5.0% of the service population of a similar facility in Los Angeles (Id.). Conversely, a Los Angeles facility would cause interference to 11.7% of the service population of the San Diego station. These are significant violations of the Commission's present 0.5 percent interference standard. Making matters worse, this type of interference situation would

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proximity to or on Mt. Wilson, further preventing adequate repacking. (Attachment 2 at 2-3)

be much worse on the east coast, where stations are more closely spaced to adjacent markets and there are fewer and lower terrain obstacles than on the west coast. In short, repacking appears illusory in the major markets.

IV. BEFORE PROCEEDING WITH THE *PLAN's* PROPOSED RECAPTURE OF TELEVISION BROADCAST SPECTRUM, INCUMBENT LICENSEES SHOULD BE ALLOWED TO OFFER BROADBAND AS AN ANCILLARY SERVICE

Commission Rule 73.624© currently permits television stations to provide ancillary services, and the Commission should permit broadcasters to provide a broadband service under that enablement. The rule reads:

> Provided that DTV broadcast stations comply with paragraph (b) of this section [by broadcasting at least one free signal], DTV broadcast stations are permitted to offer services of *any nature*, consistent with the public interest, convenience, and necessity, on an ancillary or supplementary basis. The kinds of services that may be provided include, but are not limited to computer software distribution, data transmissions, teletext, interactive materials, aural messages, paging services, audio signals, subscription video, and *any other services that do not derogate DTV broadcast stations' obligations* under paragraph (b) of this section. (italics added)

See also, 47 U.S.C. § 336. Unfortunately, on February 10, 2011, the Media Bureau (DA 11-260) denied a request by a low power television station to test a technology that would allow television stations to provide broadband access. The rational provided was that:

> the request appears to be more akin to a developmental license, which may in appropriate circumstances be used to introduce a new service that does not comply with our existing rules; however, such a request should be accompanied by a petition for rulemaking seeking changes consistent with the operation under investigation.

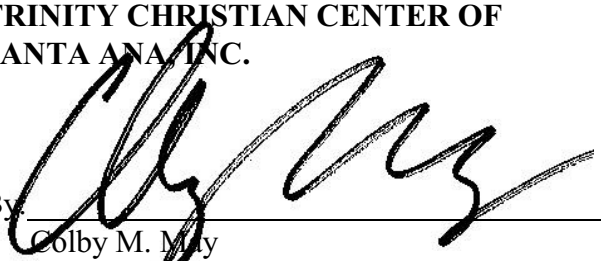
Trinity respectfully submits that this proceeding presents an appropriate opportunity to permit the development of such alternative and innovative uses of the broadcast spectrum, toward the option of allowing incumbent broadcasters to offer broadband as an ancillary service.[10]

CONCLUSION

For the foregoing reasons, the Commission should refrain from implementing the proposal in the *National Broadband Plan* to recapture 120 MHZ of spectrum allocated for broadcast television.

Respectfully submitted,

TRINITY CHRISTIAN CENTER OF SANTA ANA, INC.



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March 18, 2011

[10/] Rule 73.624(g) requires that each commercial and noncommercial educational DTV licensee and permittee must remit to the Commission 5% of the gross revenues derived from any subscription or fee based ancillary or supplementary services. Allowing television stations to provide these ancillary services would thus be an annual financial boon to the Commission and the U. S. Treasury.

ATTACHMENT A

STATIONS OF THE TRINITY BROADCASTING NETWORK[1]

Call Sign	Community of License
WTJP-TV	Gadsden, Alabama*
WMPV-TV	Mobile, Alabama*
WMCF-TV	Montgomery, Alabama*
KTBN-TV	Santa Ana, California*
WHLV-TV	Cocoa, Florida*
KPJR-DT	Greeley, Colorado*
WELF-TV	Dalton, Georgia*
WHSG-TV	Monroe, Georgia*
KAAH-TV	Honolulu, Hawaii*
WWTO-TV	LaSalle, Illinois*
WBUY-TV	Holly Springs, Mississippi*
KTAJ-TV	St. Joseph, Missouri*
WGTW-TV	Burlington, New Jersey.*
KNAT-TV	Albuquerque, New Mexico*
WDLI-TV	Canton, Ohio*
WFSJ-TV	Newark, Ohio*
KDOR-TV	Bartlesville, Oklahoma*
KNMT-TV	Portland, Oregon*
WPGD-TV	Hendersonville, Tennessee*
WTPC-TV	Virginia Beach, Virginia
WWRS-TV	Mayville, Wisconsin*
KPAZ-TV	Phoenix, Arizona*
WHFT-TV	Miami, Florida*
WKOI-TV	Richmond, Indiana*
WCLJ-TV	Bloomington, Indiana*
WTBY-TV	Poughkeepsie, New York*
KTBO-TV	Oklahoma City, Oklahoma*
KDTX-TV	Dallas, Texas*
KTBW-TV	Tacoma, Washington*
WTCE-TV	Fort Pierce, Florida
WJEB-TV	Jacksonville, Florida
KHCE-TV	San Antonio, Texas
KITU-TV	Beaumont, Texas
KLUJ-TV	Harlingen, Texas
KETH-TV	Houston, Texas

[1] Owned and Operated stations noted with an asterisk (*), and include Trinity Christian Center of Santa Ana, Inc.; Trinity Broadcasting of Arizona, Inc.; Trinity Broadcasting of Florida, Inc.; Trinity Broadcasting of Indiana, Inc.; Trinity Broadcasting of New York, Inc.; Trinity Broadcasting of Oklahoma City, Inc.; Trinity Broadcasting of Texas, Inc.; and Trinity Broadcasting of Washington.

ATTACHMENT B

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK (TBN), licensee of numerous full-power digital television stations throughout the United States, in support of its Comments in regard to ET Docket No. 10-235, *Innovations in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, FCC 10-196 (76 FR 5521, published 2/1/2011). It is believed that, in order to accommodate new broadband internet services, a 120 MHz band of contiguous spectrum with relative small wavelength will be required. The Commission is considering repurposing Channels 32 to 51 (inclusive) in the UHF television band for broadband internet and requiring existing television stations to either voluntarily go off the air, change channels or share existing channels. It is believed that digital television stations would have to operate only on Channels 2 through 31 (inclusive). The purpose of this engineering statement is to show how difficult this re-packing task will be in major television markets.

TBN is the licensee of full-power digital television station KTBN-DT, Channel 33 in Santa Ana, California, which is part of the Los Angeles Designated Market Area (DMA). The transmitter site of KTBN-DT, as well as that of most of the other full-power digital television stations in the Los Angeles DMA, is on Mount Wilson.

First, let us assume that the Commission is looking at taking Channels 32 to 51 (120 MHz) from the television spectrum for their broadband proposal. That would normally leave

the following channels for television broadcasting in any given market: five low-band VHF channels (Channels 2-6), seven high-band VHF channels (Channels 7-13), and 18 UHF channels (Channels 14-31). That is a total of 30 available channels for television broadcasting in any given market.

However, in Los Angeles (as in many major markets), there are Public Safety/ Land Mobile assignments on Channels 14, 16 and 20. Since the devices that presently exist on these Land Mobile channels cannot function properly when located in the vicinity of a first-adjacent-channel full-power digital television station, seven UHF channels (Channels 14, 15, 16, 19, 20 and 21) are presently not usable by television broadcasters in the Los Angeles DMA. Therefore, in Los Angeles, there are a total of 12 VHF channels and only 11 UHF channels, for a grand total of 23 available channels for re-packing.

There are a total of 26 full-service digital television stations in the Los Angeles market. This number includes stations in Twentynine Palms and Barstow, both of which have facilities that are located a significant distance from Mt. Wilson, where the rest of the stations in the DMA are located. There are also at least five Class A LPTV stations located in close proximity to or on Mt. Wilson. Obviously, in this market, there is no way to fit 26 full-service stations into 11 UHF or 23 UHF/VHF channels without some sharing of spectrum by certain broadcasters or having some of them go off the air. And that also presumes that Class A stations are no longer protected to the same extent as full power stations and that the five stations in L.A. can be ignored in the process.

In order to allow for the maximum number of stations to be re-packed in the major

television markets like Los Angeles, there will need to be some significant changes to the current FCC Rules. For one, all stations in a given market must be either co-located or nearly co-located and with similar antenna heights, power levels and antenna patterns. This will minimize the likelihood of first-adjacent-channel interference. In order to accomplish this, the outlying stations in a DMA (especially in spectrum dense markets like Los Angeles) must be allowed to co-locate with the other stations in a given market. If that is a valid premise, then the FCC must abandon its city-grade coverage requirements, relax the signal strength contour or allow re-located outliers to use distributed transmission systems to serve its city of license. If outlying stations are not allowed to co-located with the rest of the market stations, the outliers could essentially negate the use of three channels each in their market and/or adjacent markets, due to high levels of adjacent-channel interference, or the FCC allow such interference to occur to the detriment of the outlying station and its viewers.

The other issue that would need to be addressed would be co-channel interference levels from stations using the same channel in adjacent markets. In the case of KTBN-DT, the adjacent markets would be Bakersfield and San Diego. Because of terrain that exists between L.A. and Bakersfield, the interference between co-channel stations operating with maximum omnidirectional facilities would be small (less than 1 percent, based on my analysis). However, a co-channel 1000 kW omnidirectional facility in San Diego would cause interference to 5.0% of the service population of a similar facility located in Los Angeles. Conversely, the L.A. facility would cause interference to 11.7% of the service population of the San Diego station. These are significant violations of the Commission's present 0.5 percent interference standard. This

interference situation would be much worse on the east coast, where stations are more closely spaced to adjacent markets and there are fewer and lower terrain obstacles than there are on the west coast. In the case of east coast major market stations, use of lower ERP values and directional antenna patterns is likely to be required.

Another requirement in these major markets would be the elimination of Land Mobile/Public Safety channels in the lower UHF band. By doing so, the Commission would significantly increase the number of available channels for the re-packed television stations.

Finally, it is my opinion that only the UHF channels can provide adequate signals to television viewers. Certainly, the low-band VHF channels are considered to be essentially worthless for digital television broadcasting due to the allowable power levels and the interference from natural and manmade sources that adversely affect reception on these channels. Many of the television stations that tried to operate or are presently operating on post-transition high-band VHF channels have discovered that the signals do not propagate nearly as well as the Commission's planning factors would indicate. Many of these stations have petitioned to change back to UHF channels, attempt to get waivers of the FCC Rules to operate with significantly more power, or have simply resolved themselves to a significant loss of viewership. It is also a fact that reception of VHF signals on mobile/handheld devices would be nearly impossible at these frequencies due to the inefficiency of the receive antennas. If television broadcasters are unwilling to accept or unable to effectively operate on VHF

channels, it obviously and considerably reduces the number of available channels to which stations could migrate under the Commission's re-packing plan.

In conclusion, under the proposed Commission re-packing plan for television broadcasters, we believe that it will be nearly impossible to accommodate most, if not all, present full-service digital television stations in major markets without one or more of the following: significant changes to the FCC's city-grade coverage and interference Rules to allow all stations in a given market to co-locate; elimination of the Land Mobile/Public Safety allotments on lower UHF channels; many stations in a given market agreeing to go off the air; and/or , a number of stations in a given market agreeing to share channels. Obviously, this is a daunting, if not impossible, task.

I declare, under penalty of perjury, that the foregoing statements are true and correct to the best of my knowledge and belief.

KEVIN T. FISHER

March 1, 2011

TELEVISION STATIONS (FULL SERVICE AND CLASS A)
IN THE LOS ANGELES, CALIFORNIA DMA

Call Sign	Channel	City of License
KABC-DT	7	Los Angeles
KCAL-DT	9	Los Angeles
KTTV-DT	11	Los Angeles
KCOP-DT	13	Los Angeles
KSCI-DT	18	Long Beach
KVMD-DT	23	Twentynine Palms
KTBN-DT	33	Santa Ana
KBEH-DT	24	Oxnard
KVCR-DT	26	San Bernardino
KCET-DT	28	Los Angeles
KFTR-DT	29	Ontario
KTLA-DT	31	Los Angeles
KDOC-DT	32	Anaheim
KMEX-DT	34	Los Angeles
KRCA-DT	35	Riverside
KNBC-DT	36	Los Angeles
KPXN-DT	38	San Bernardino
KVEA-DT	39	Corona
KLCS-DT	41	Los Angeles
KWHY-DT	42	Los Angeles
KCBS-DT	43	Los Angeles
KHIZ-DT	44	Barstow
KAEA-DT	47	Avalon
KOCE-DT	48	Huntington Beach
KJLA-DT	49	Ventura
KXLA-DT	51	Rancho Palos Verdes
KSFV-CA	6	San Fernando Valley
KSKP-CD	26	Oxnard
KNET-CA	25	Los Angeles
KPAL-LP	38	Palmdale
KSKJ-LD	45	Van Nuys / Oxnard